



**DEPARTMENT OF THE ARMY  
HEADQUARTERS, U. S. ARMY MEDICAL COMMAND  
2050 WORTH ROAD  
FORT SAM HOUSTON, TEXAS 78234-6000**

REPLY TO  
ATTENTION OF

MCPO-SA

OTSG/MEDCOM Policy Memo 07-022

**26 JUN 2007**

Expires 26 June 2009

**MEMORANDUM FOR Commanders, MEDCOM Major Subordinate Commands**

**SUBJECT: Medical Management of Army Personnel Exposed to Depleted Uranium (DU)**

1. References. See Annex 1 to the enclosure.
2. Purpose. To clarify established policy, expand responsibilities and procedures, and provide additional guidance for the medical management of Army personnel exposed to DU (enclosure).
3. Proponent. Proponency Office for Preventive Medicine-San Antonio.
4. Details.
  - a. This policy supersedes OTSG/MEDCOM Policy Memo 05-003, 04 March 2005, subject: Medical Management of Army Personnel Exposed to Depleted Uranium (DU) (reference 4, Annex 1).
  - b. This policy directs the implementation of the 09 April 2004 Department of Defense Health Affairs memorandum and the 30 May 2003 Department of Defense Health Affairs Policy 03-012, for Operation Iraqi Freedom Depleted Uranium (DU) Medical Management (references 1 and 2, respectively, Annex 1), supports the 6 February 2004 Department of Defense Health Affairs Policy 04-004 for Biomonitoring Policy and Approved Bioassays for Depleted Uranium and Lead (reference 3, Annex 1), and provides further policy, responsibilities, procedures, and guidance for the medical management of patients exposed to DU.
  - c. Healthcare Providers will identify, assess, and treat (if needed) all personnel with actual or potential exposures to DU who are assigned a potential exposure level (I, II, or III). They will monitor and track these personnel according to the responsibilities, procedures, and guidance provided in the enclosure. Treat personnel exposed to DU, as confirmed by DOD bio-monitoring, and enter them into the Joint Theater Trauma Registry (JTTR), AHLTA, or current medical record in existence.

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- d. Do not delay required medical treatment or evaluations because of the possible presence of DU on skin or clothing, for the determination of the presence of DU on a patient or for DU bioassay specimen collection.
- e. Perform DU bioassays on all personnel with imbedded metal fragments that might include DU or who were in, on, or near (less than 50 meters) an armored vehicle at the time (or shortly after) it was struck with a DU munition (Level 1 exposure category).
- f. Perform DU bioassays on all personnel who routinely enter damaged vehicles as part of their military occupation or who fight fires involving DU munitions (Level II exposure category).
- g. DU bioassays are not required for personnel with incidental exposure to DU, although a physician may choose to perform one based on medical indications or on the potentially exposed individual's request (Level III exposure category).
- h. This policy eliminates the requirement to collect urine specimens in Theater for DU bioassay.
- i. The case management process has worked well to provide potentially exposed Soldiers with one-on-one health risk communication and information related to any results from DU bioassays. Annex 2 to the enclosure recommends the assignment of a case manager for Soldiers submitting urine specimens for DU bioassay.

FOR THE COMMANDER:

Encl  
as

  
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## **Procedures/Guidance for the Medical Management of Army Personnel Exposed to Depleted Uranium (DU)**

1. References. See Annex 1 to this enclosure.

2. Responsibilities. Annex 2 to this enclosure defines the responsibilities for Army medical personnel.

3. General.

a. The procedures in this document will identify, assign a potential exposure level (I, II, or III), assess, and treat (if needed) all personnel with actual or potential exposure to DU regardless of the source. In addition, these procedures detail required monitoring and tracking of all Army personnel with retained metal fragments and/or suspected inhalation or incidental exposure to DU. Level III exposures are annotated in the Soldier's medical record. Upon the Soldier's departure from Federal service, the medical record is archived in the National Personnel Records Center for future access.

b. The following procedures will also be used to ensure the appropriate use of urine bioassay for DU exposure assessment and biomonitoring.

c. Annex 3 to this enclosure contains a short questionnaire to assist the healthcare provider in assessing potential DU exposure. Annex 4 to this enclosure provides the Department of Defense (DD) Form 2872 Test DU Questionnaire and DD Form 2872-1 Test, Health Survey, which is completed for all personnel submitting specimens for DU bioassays. Annex 5 provides packing and shipping requirements for DU bioassay and fragment specimens. Annex 6 to this enclosure summarizes these procedures in a checklist format for healthcare providers (HCP). Annex 7 summarizes these procedures in a flow chart format. Annex 8 is a copy of the Deployment Health Clinical Center provider flow chart used in the Clinical Practice Guidelines for post-deployment health.

d. Medical units located in a Theater of Operations and higher echelon medical facilities, acting as enroute processing points for redeploying Soldiers, should not collect the 24 hour urine specimen for the DU bioassay. The collection requirements are documented on the Soldier's DD Form 2796, Post-Deployment Health Assessment, and other medical records (e.g., DD Form 2766, sections 5 and 7 (block 20) ensuring collection of the 24 hour urine specimen and documentation by the Soldier's home station MTF.

4. Definitions of potential DU exposure levels.

a. Level I. Personnel struck by DU munitions or who were in, on or near (less than 50 Meters) a combat vehicle at the time (or shortly after) it was struck with DU munitions.

(1) Personnel in this Level may exceed occupational safety levels when a sufficient amount of DU is taken into an individual's body. This level includes personnel who were struck by DU munitions or who were in, on or near (less than 50 meters) a combat vehicle struck by DU munitions or DU armor when it is breached by any munitions and to first responders who entered these vehicles to render aid to the crewman, or to those with retained fragments that contain DU.

(2) DU bioassays are administered to all personnel within this Level. After more than a decade of medical surveillance of the 1991 Gulf War survivors of DU-related injuries, no adverse toxicological effects related to the presence of DU have been identified (McDiarmid et al., 2004, reference 23, Annex 1 to this enclosure).

(3) Bioassays are performed as soon as medical condition permits a urine collection at the Soldier's home station MTF. Non-hospitalized Level I personnel will have their medical records annotated that a 24-hour urine collection is required and these bioassays will be performed as soon as possible (e.g., upon return to home station).

b. Level II. Personnel who routinely enter DU damaged vehicles as a part of their military occupation or who fight fires involving DU munitions.

(1) Personnel in this Level may exceed occupational safety levels when a sufficient amount of DU is taken into an individual's body. This Level includes personnel who routinely enter vehicles containing DU dust to perform maintenance and recovery operations (other than first responder), intelligence operations, or battle damage assessment. This level also includes personnel whose occupation involves fire fighting involving DU munitions.

(2) DU bioassays are administered to all personnel within this Level. Specimen collection should be done as soon as possible when the Soldier returns to his/her home station MTF. The type of personal protective equipment worn during potential DU exposure situations should be annotated in the remarks section of the DoD DU questionnaire.

(3) Medical records are annotated (e.g., DD Form 2766, sections 5 and 7 (block 20) with the requirement to collect a 24-hour urine specimen for DU bioassay.

c. Level III. Personnel with "incidental" exposures to DU.

(1) Examples of personnel in this level include individuals who have driven through smoke from a fire involving DU munitions or who have entered or climbed on or in a battle damaged vehicle on an infrequent basis (not as a first responder and not as a job requirement to enter vehicles that may have been contaminated with DU) or Soldiers, DoD Civilians and Contractors that may have been exposed to buried DU.

(2) Bioassays are not required for personnel in this level, though a physician may choose to perform one based on medical indications or on the potentially exposed individual's request. If the individual indicates that he was cut, scraped, or sustained a puncture type wound while in, on or around a potentially contaminated vehicle, then it is strongly recommended that a urine bioassay is ordered. The individual may have an embedded fragment that contains DU. NOTE: Paradoxically, this group may require more health risk communication than those in Levels I and II. Level I personnel may know they have retained fragments or were potentially exposed to a relatively high level of DU while those in Level III may have various signs and symptoms not attributable to a single cause and so feel that DU may be the causative agent.

5. Treatment considerations for wounded personnel with suspected DU exposure.

a. Follow these standard procedures when treating wounded personnel.

(1) Embedded fragments should be removed using standard surgical criteria (reference 10, Annex 1, provides guidance) except that large fragments (greater than 1 cm) should be more aggressively removed unless the medical risk to the patient is too great. The short-term consequence of retained DU fragments does not justify an aggressive approach during the early treatment of wounds. Appropriate treatment of the wound with removal of any easily accessible fragments is performed. In the care of acute wounds, surgical judgment is used to avoid the risk of harm in removal of other fragments, even when known to be DU. DU fragments may always be removed at a later date.

(2) Monitoring of the kidney function is recommended for patients who have contaminated wounds, embedded depleted uranium fragments, or who are acutely wounded. Monitoring should follow the current protocol in use by the Baltimore Veterans Affairs (VA) Depleted Uranium Program.

(a) The kidney is one of the organs most sensitive to uranium exposure. The VA protocol recommends the following kidney function tests: urinalysis, 24-hour urine for uranium bioassay, blood urea nitrogen (BUN), creatinine, beta-2-microglobulin, and creatinine clearance.

(b) Chelation therapy is not recommended based upon current estimates of depleted uranium exposure health effects.

b. Medical treatment or evaluations immediately required shall not be delayed because of the possible presence of DU on skin or clothing, for the determination of the presence of DU on a patient, or for DU bioassay specimen collection.

c. The presence of DU fragments in a patient's body presents no risks to healthcare providers (HCP) or other individuals. As with other heavy metals retained in the body, DU in all body fluids (urine, blood, sweat, saliva, and semen), tissues, and excrement

(feces) is not categorized as hazardous material waste and no special precautions related to DU are required for handling or disposal.

d. Specimens for urine DU bioassays or fragment collection are potentially obtained in a Theater of Operations in emergency situations or under medical orders even though not required by this policy. Specimens are potentially collected during redeployment/demobilization in CONUS when feasible and when the patient's clinical condition permits; however, specimen collection must occur at home station if not accomplished and documented during redeployment/demobilization.

6. Identifying personnel with potential exposure to DU during deployments. Assistant Secretary of Defense, Health Affairs (ASD ( HA ) guidance (reference 1, Annex 1 to this enclosure) reminds all Services of the requirement to identify potential DU exposures in various ways including unit personnel mission and post-deployment assessments. Tier 1, DU awareness training (reference 8, Annex 1) requires notification of DU-related incidents through command channels. HCPs, too, have a major role in the identification process.

a. Identifying personnel with potential exposure to DU during deployments becomes critical when potentially exposed personnel are deploying longer than when practicable after a suspected exposure. Urine specimens collected more than practicable after exposure remain valid for Level I exposures but may not support the documentation of Level II and Level III exposures to DU; however, urine specimens are collected on all Level I and Level II personnel potentially exposed to DU regardless of the length of time since exposure. A Level III potentially exposed Soldier does not require DU bioassay; however, a physician may choose to perform one based on medical indications or on the potentially exposed individual's request.

b. Indicators of potential exposure. There are several indicators of potential exposure to DU above the current peacetime occupational levels.

(1) Indicators of DU exposure that are obtained directly from the patient or the patient's field medical card include:

(a) Patient's vehicle was struck by a Kinetic Energy (KE) munition. (KE munitions are made from either tungsten or DU.)

(b) Patient's vehicle was struck by DU munitions either from US tanks or aircraft.

(c) Patient reports he saw burning fragments (like a Fourth of July sparkler) while the vehicle was being penetrated (DU is pyrophoric [i.e., may ignite spontaneously in air] and can ignite when fine particles are formed).

(d) Patient was a first responder and entered the vehicle to rescue or evacuate personnel, or retrieve sensitive material, immediately after the vehicle was struck.

(e) Patient was wounded by DU munitions. Similar to lead, tungsten, and steel, DU fragments are readily visible on x-ray. Radiography alone, however, is not sufficient to determine the presence or absence of DU. If readily available, a RADIAC meter (ANVDR-2) with the beta shield open or equivalent) may potentially monitor surgically removed fragments, wounds, burns, surfaces, or sites with suspected DU contamination or embedded fragments. This will indicate the likely presence of DU and can assist in wound cleaning or surface decontamination. Under no circumstances should medical treatment be delayed to obtain an ANVDR-2.

(2) It is unlikely that environmental measurements or dose assessments will be available in all situations, especially in combat. However, if field survey monitoring indicates the presence of radioactive material on the patient, or in the vicinity of his activities when injured, then include the survey results, the time and date of the survey, and the type and serial number of the RADIAC meter and detection probe on the field medical card or other patient records. The clinician should alert preventive medicine if other individuals have been exposed so that an exposure assessment can be performed.

c. Suspected DU exposure.

(1) If DU exposure is suspected at Health Service Support (HSS) Echelons I and II, medical personnel should annotate the Field Medical Card (DD Form 1380), Block 13 (Diagnosis) or patient's clinical record (SF 504 or other) with the statement: "SUSPECTED DEPLETED URANIUM (DU) EXPOSURE", and the time, date, and other pertinent information (e.g., in Block 9 state the circumstances of "What was he doing when injured?"). Designated individuals or elements organic to combat and combat support units provide medical care at HSS Echelon I. This may include self-aid or buddy aid, the combat lifesaver, the combat medic, and the battalion aid station. Echelon II, for non-wounded personnel, provides medical care at the division or corps clearing station.

(2) If DU exposure is suspected at HSS Echelons III and IV, medical personnel should record the information in the medical record on the DD Form 2766 and code the information into the Ambulatory Data Management (ADM) (previously called Ambulatory Data System (ADS)) and the Composite Healthcare System (CHCS) or AHLTA (Electronic Health Record). A hospital staffed and equipped to provide resuscitation, initial wound surgery, and post-operative treatment provides the care at Echelon III. A hospital staffed for general and specialized medical and surgical care and rehabilitation for RTD provides the care at Echelon IV.

(3) For personnel who are suspected of having exposure to DU and who are not expected to re-deploy when practicable after a suspected exposure, DU exposure levels (I-III) are assigned and documented and bioassay procedures should begin for Level I and II personnel. While bioassay procedures need not be instituted in-Theater or at intermediate stops enroute to CONUS (e.g., Landstuhl, Germany, or redeployment/demobilization stations), medical records must document the need for



follow-up bioassay. Annotations in medical records must be sufficiently clear so that subsequent reviews (e.g., home station) will produce the necessary bioassay.

(4) The HCP or Primary Care Manager (PCM) at the echelon of care at which fragment and/or urine specimens are collected from Level I and II personnel will complete the DD Form 2872, DU Questionnaire and DD Form 2872-1, Health Survey or overprinted SF 600, when made available from ASD(HA). The original DU Questionnaire is placed in the individual medical record and a copy is sent along with any fragment or urine specimens going to the USACHPPM for analysis.

d. Specimens for urine DU bioassays should be obtained when operationally feasible and when the patient's clinical condition permits; however, such delays should not prevent eventual specimen collection.

e. Exposure situations include both known DU exposure, as well as potential DU exposure, based upon proximity to a blast, fire or historical incident involving a DU projectile or DU armor.

#### 7. Post-deployment screening for actual or potential exposure to DU.

a. The initial HCP will identify Army personnel with retained metal fragments and suspected inhalation or incidental exposure to DU. The initial HCP does this by:

(1) Reviewing and ensuring the completion of the DD Form 2796 for all redeploying/demobilizing Soldiers.

(2) Identifying wounded individuals and individuals with suspected DU exposure who provided a positive response on the DD Form 2796 (Apr 03), Post-Deployment Health Assessment, to Questions 14, 17 or 18 regarding potential DU exposure.

(3) Using the short exposure assessment questionnaire provided in Annex 3 to complete the potential exposure assessment; assigning a DU potential exposure level (I, II, or III); and determining the need for bioassay for potentially exposed Soldiers. Note: If for some extenuating circumstance a DU Exposure Category is not provided by the requesting HCP nor is a Post-Deployment DU Exposure Questionnaire provided for a patient, USACHPPM is required to administratively place the patient into an exposure category (I, II, or III) based upon the results of the laboratory analysis of the submitted specimen. If additional information regarding the patient is later obtained, the administrative exposure category may be updated. The ASD (HA) is requiring this information for all patients under evaluation for DU exposure.

(4) Documenting the assigned level (Level I-III) of potential DU exposure on the DD Form 2796.

(5) Referring all individuals assigned a Level I or II potential DU exposure to their PCM at the Medical Treatment Facility (MTF) for further assessment and a 24-hour

urine uranium analysis as soon as possible. The level of exposure and referral, if indicated, will be documented on the DD Form 2796 and in the individual health record on the DD Form 2766 and transferred into the permanent medical record during reconciliation/update.

b. The HCP or PCM at the MTF at which fragment and/or urine specimens are collected from Level I and II personnel will complete the DD Form 2872, DU Questionnaire and DD Form 2872-1, Health Survey or overprinted SF 600, when made available from ASD (HA). The original DU Questionnaire is placed in the individual medical record and a copy is sent along with any fragment or urine specimens going to the USACHPPM for analysis. USACHPPM requires the DD Form 2872 and DD Form 2872-1 for each specimen (fragment or urine).

#### **8. DU Bioassay specimen collections and management.**

##### **a. Metal fragments removed from Level 1 patients.**

(1) Metal fragments, suspected to contain DU; removed from Level I patients will be considered clinical laboratory specimens and forwarded to USACHPPM for composition analysis. Information provided with the fragment specimen shall include: a completed Standard Form 557, Miscellaneous, with the ordering physician's contact information; the injury date; and the date the fragment was removed from the patient. A copy of the completed DoD DU Questionnaire will accompany all metal fragments sent to USACHPPM for analysis. USACHPPM requires the DD Form 2872 and DD Form 2872-1 for each specimen (fragment or urine).

(2) Documentation accompanying each metal fragment specimen should indicate if it is suspected that similar fragments remain embedded in the patient. Also helpful would be to know if any urine bioassays were collected from the Soldier (in an out-of-theater Medical Treatment Facility), before or after fragment removal. If urine bioassay were collected, then the dates and times of collection need to be provided.

(3) The local medical laboratory will maintain a roster of metal fragment specimens shipped with patient identification. The local medical laboratory will receive the results and is responsible for ensuring that results are entered into the individual's medical record and into the local automated clinical information system (e.g., CHCS or AHLTA). Non-DU fragments can be returned to the requesting MTF upon request. Upon completion of that action, requests for DU bioassay may be submitted on line and the results will be posted similar to current standard medical tests.

##### **b. Urine specimens.**

(1) The HCP or PCM at the supporting MTF will refer all Army personnel assigned a Level I or II DU potential exposure category to the clinical laboratory for 24-hour urine specimen collection.

(a) A 24-hour urine specimen results in a more accurate dose estimate than would result from a spot urine specimen and will provide sufficient volume for additional analyses when required.

(b) A 24-hour urine specimen is required for subsequent AMEDD and Department of Veterans Affairs (DVA) follow-up for all Level I and II exposure category personnel who are in-patients.

(c) Post-exposure urine specimens should be collected when practicable after suspected DU exposure. In accordance with DoD policy, an identified Level II Soldier will have a urine specimen collected; a Level III potentially exposed Soldier does not require DU bioassay; however, a physician may choose to perform one based on medical indications or on the potentially exposed individual's request.

(2) The local clinical laboratory will collect and manage 24-hour urine specimens according to the following procedures:

(a) The specimens will be collected using the containers specified in Annex 5.

(b) Instruct the patient to collect urine beginning after first morning void of Day 1 and end collection after first morning void of Day 2 (the next day). Document the beginning time, the ending time and the total volume of this 24-hour collection.

(c) After an aliquot is taken from it for a creatinine test, the 24-hour urine specimen will be packaged for shipment to USACHPPM.

(d) All 24-hour urine specimens for DU bioassay will be forwarded to USACHPPM following the guidance in Annex 5. Each urine specimen will be shipped with a completed Standard Form 557, Miscellaneous, a copy of the completed DOD DU Questionnaire, a copy of the Health Survey, and results of the urine creatinine analysis. Information on the patient's age, sex, height, weight, and potential exposure level (I, II or III) should also be furnished. USACHPPM requires the DD Form 2872 and DD Form 2872-1 for each specimen (fragment or urine).

(3) The laboratory will also complete a urine creatinine analysis on an aliquot from each 24-hour specimen. For measurement of urine creatinine level, the patient's age, sex, height, weight, and potential exposure Levels (I, II or III) must be provided on the laboratory request, Standard Form 557, Miscellaneous.

c. All laboratories that collect or receive specimens will maintain a registry of specimens (fragments and urine).

d. The USACHPPM will continue to provide DU bioassay and fragment analysis results and interpretations to the requesting MTFs and copies with all related documents to the DHCC and the U.S. Army Ionizing Radiation Dosimetry Center. For

Electronic Patient Records input and retrieval, the use of the Composite Health Care System I and II (CHCS I and II) has not been feasible for USACHPPM.

9. Other Heavy Metals/Alloys fragment specimen collection and management.

a. The packing and shipping requirements and instructions are contained in Annex 5. The fragment should be clearly identified as a metal fragment and NOT as a DU fragment.

b. The shipper, Level Three or higher MTF, is responsible for entering into CHCS or AHLTA the patient data, circumstances of injury, and other relevant data as prescribed by CHCS or AHLTA.

c. USACHPPM, upon receipt of the metal fragment, will record the receipt of the fragment, the shipper's organization, points of contact, and enter the data into CHCS or AHLTA.

(1) USACHPPM Directorate of Laboratory Sciences will analyze the fragment for tungsten alloy.

(2) If the fragment contains a tungsten alloy, the USACHPPM Directorate of Laboratory Sciences will forward the data to the requesting MTF for entry into the CHCS or AHLTA and archive the fragment.

d. The MEDCOM Health Policy and Services Directorate, Ancillary Health Services Division, will provide staff oversight of the clinical laboratory support for the collection, identification, and processing of extracted fragments for proper identification of the metal.

10. Laboratory procedures.

a. The USACHPPM Directorate of Laboratory Sciences (DLS) will provide Army bioassay and metal fragment identification services. All specimens (metal fragments and urine) will be sent to USACHPPM.

(1) All analyses performed by DLS are within a Quality System that is certified as compliant to ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration." All elements of the DLS Quality System are documented and conformance ensured by external audits.

(2) The DLS meets all of the requirements for and maintains the following technical certifications: Commission on Laboratory Accreditation (COLA) and Clinical Laboratory Improvement Program (CLIP) for all radiobioassay measurements for uranium. These certifications provide validation of the DLS quality processes through external third party review by trained auditors.

(3) All analytical certifications require laboratory participation in a proficiency evaluation (PE) study, if available. To meet this requirement for uranium bioassay work, DLS participates in the Oak Ridge PE program for uranium concentration in natural urine matrix.

(4) Continual improvement is an integral part of the DLS Quality System requiring periodic actions to identify trends and areas requiring improvement.

b. The USACHPPM Directorate of Laboratory Sciences will provide Army bioassay and metal fragment identification services. All specimens (metal fragments and urine) will be sent to USACHPPM.

(1) When briefed by a healthcare provider, the patient also needs to be told that the laboratory result may not be available until after the patient leaves the MTF. The patient should be given contact information for the DoD Deployment Health Clinical Center (DHCC), which he or his future healthcare provider may contact to obtain a copy of his laboratory results and interpretation.

(2) The MTFs need to maintain contact information on their patients when they leave the MTF and go to another military installation or who have left Active Duty. Use the DU Exposure Questionnaire for the patient to provide a permanent Home of Record/address, and telephone number. This information is especially important for patients who test positive for DU exposure.

c. The MEDCOM Health Policy and Services Directorate, Ancillary Health Services Division, will provide staff oversight of the clinical laboratory support for the collection, identification, and processing of urine specimens for DU bioassay, extracted fragments for proper identification of the metal, and measurement of creatinine in urine as part of the DU bioassay effort.

d. USACHPPM will report results of fragment analysis and urine bioassay results to the MTF laboratory that submitted the sample with interpretation and comparison to referent norms as appropriate. All urine bioassay results will be reported normalized to creatinine (e.g., micrograms of. uranium per nanogram creatinine) and normalized to the volume of the urine specimen (e.g., micrograms uranium per liter of urine). In addition, USACHPPM will send all remaining urine from USACHPPM analyzed specimens to Armed Forces Institute of Pathology (AFIP) for archiving. Upon closure of AFIP (BRAC recommendation) a decision on archiving samples will be made by USACHPPM.

(1) This action is completed expeditiously using USACHPPM approved internal procedures; however, if there is an unexpected increase in submitted specimens for DU bioassay, then USACHPPM may coordinate with the AFIP or the Centers for Disease Control and Prevention (CDC) for assistance.

(2) Records are maintained that support not only the analytical results but also the transmittal of those results to the requesting MTF,

e. The laboratory receiving the results from USACHPPM will ensure that the results are routed appropriately in order to be placed in the affected individual's medical record. The interpretation of laboratory results by USACHPPM Health Physics Program (with Occupational Environmental Medicine Programs assistance) accompanies the laboratory results back to the MTF including the MTF laboratory and the HCP.

f. The USACHPPM Radiologic, Classic and Clinical Laboratory Division, provides consultations on DU bioassay specimen collection, preservation, shipment; and laboratory support, contact number is (410) 436-3983 or DSN 584-3983. The USACHPPM Health Physics Program interprets laboratory results and provides bioassay interpretation reports, with assistance from the Occupational Medicine physicians in the Directorate of Occupational and Environmental Medicine. Current methodology, accepted by international and national consensus organizations [e.g., International Commission on Radiological Protection (ICRP dosimetry models)], is used by the Health Physics Program to perform internal radiation dose assessments. Health risk interpretations for both radiological and chemical health risk are provided based on the internal dose assessments and current health risk assessment guidance (e.g., Health Physics Society Position Paper). The USACHPPM Health Physics Program may be reached at (410) 436-3502 or DSN 584-3502. During non-duty hours, USACHPPM assistance may be obtained using the USACHPPM Emergency Contact Numbers at (800) 222-9698 or (888) 786-8633.

#### 11. Health risk communication.

a. A critical component of the DoD strategy for the medical management of DU exposures is health risk communication. The HCP is the key individual in this activity. The HCP must inform the patient about the results of the DU bioassay, and ensure that this communication and the health risk assessment and its interpretation are documented in the medical record. The HCP must also discuss any need for additional medical follow-up.

b. Information is available to help the HCP effectively communicate the DU exposure assessment and its interpretation to the patient.

(1) Fact sheets for HCPs and Soldiers which explain potential DU exposure and health implications can be found at USACHPPM's web site. (NOTE: The DU Fact Sheet numbers are 65-050-0503 for the individual and 65-051-0503 for the HCP.) Other useful information includes the USACHPPM Fact Sheet entitled Urine Testing for Depleted Uranium, May 2004 and DHCC web page on DU which contains DU policies, forms, fact sheets, and clinical guidance which can be accessed at [www.pdhealth.mil/du.asp](http://www.pdhealth.mil/du.asp).

(2) The DoD Health Affairs Policy 03-012 (reference 2, Annex 1) also contains information and references for HCP to help in communication with patients.

(3) Information and consultation on ionizing radiation dosimetry, dose estimation, and ionizing radiation health risk implications of DU exposure are available from the, USACHPPM Health Physics Program at (410) 436-3502 or DSN 584-3502. During non-duty hours, contact USACHPPM at (800) 222-9698 or (888) 786-8633.

(4) Information and consultation on potential chemical and radiological health risks of DU; need for medical treatment, long-term medical surveillance, and follow-up are available from the USACHPPM Environmental Medicine Program at (410) 436-2714, or DSN 584-2714.

c. Normal values.

(1) There are no current US population reference values for DU in urine. There are current US population reference levels for natural uranium.

(2) The United States Nuclear Regulatory Commission (NRC) has set an action level for uranium in urine to protect workers occupationally exposed to uranium. This urine uranium level is 15 micrograms/liter (238U), which is well above the 95th percentiles for urine uranium levels given in Centers for Disease Control and Prevention, National Center for Environmental Health, Third National Report on Human Exposure to Environmental Chemicals, National Health and Nutrition Examination Surveys (NHANES), July 2005.

(3) The NHANES III report notes that it is unknown if the population urine uranium levels reported in the NHANES 2005 data represent cause for health concern and state that more research is needed. The NHANES 2005 geometric mean is 0.009 micrograms/liter urine in the sample of the US population of 2690 individuals 6 years and older. The 95th percentile is 0.046 micrograms/liter urine in the same sub sample of the US population. If a urine specimen is found to have urine uranium levels higher than the reference population norms, or if there are other questions that might help the interpretation process, then USACHPPM may contact the ordering physician for further guidance and instruction.

(4) The National Report on Human Exposure to Environmental Chemicals is an ongoing assessment of the exposure of the US population to environmental chemicals using biomonitoring. The first national report on 27 chemicals was issued in March 2001. A second report released in January 2003 presented blood and urine levels of 116 environmental chemicals from a sample of people that represent the non-institutionalized, civilian US population during the 2-year period 1999-2000. The third report, for 148 chemicals, released in July 2005 presents updated information for uranium for the years 2001-2002. The section of this report that presents the results of uranium in urine analyses is found at [http://www.cdc.gov/exposurereport/3rd/pdf/results\\_01.pdf](http://www.cdc.gov/exposurereport/3rd/pdf/results_01.pdf).

(5) As of September 2006 USACHPPM had evaluated approximately 1747 urine uranium bioassay results from Operation Iraqi Freedom (OIF) Soldiers. The majority of these results (92.5%) have been < 50 nanograms (ng) of uranium (U) per liter (L). There were approximately 100 specimens (7.4%) with an initial value >50 ng U/L; however, only 2 (0.1%) have been confirmed as DU at that level. A value of 46 ng U/L urine is the 95th percentile for the US population aged 6 years and older as reported in the Centers for Disease Control and Prevention, National Center for Environmental Health, Second National Report on Human Exposure to Environmental Chemicals, National Health and Nutrition Examination Surveys, Jan 03 with Mar 03 revisions (NHANES). The values reported in the NHANES Report have no prognostic value; they are not associated with any adverse health effects (reference 5, Annex 1 to this enclosure).

## 12. Medical and other records.

a. HCP must clearly document all cases of wounded personnel with embedded metal fragments.

b. The MEDCOM Patient Administration Division (PAD) is responsible for identifying coding requirements to ensure that patients with retained fragments, post-conflict, have their medical records coded appropriately (See Annex 8 for ICD-9 codes effective date 1 October 2006). Coders will input as accurately as possible the ICD-9-CM diagnosis that best fits the patient's condition, but ensuring that the coded diagnosis indicates "retained shrapnel." PAD will provide quality assurance of coding patient encounters to ensure accuracy and completeness.

### c. Patient care entries:

(1) If a Soldier, either inpatient or outpatient, has any retained fragments, the medical record, DD Form 2766 (Adult Preventive and Chronic Care Flow Sheet), item 20, will be annotated with an appropriate entry. Entries may include; embedded metal fragment, retained metal fragment, or suspected retained shrapnel. If the metal type (e.g., DU) is known at the time, this is annotated.

(2) Patients medically evacuated (both in and outpatient) require a TRACES entry in the Patient Movement Request type injury code.

(3) Patients followed up or evaluated per treatment guidelines at all MTFs must have the appropriate Standard Ambulatory Data Record entry. When the health encounter is post-deployment, the V70.5\_6 is used as the primary code and the code for the deployment-related presenting problem should be placed in the secondary position. (V 70.5\_6 is appropriate to use on both active duty and non-active duty records.)



d. There is no specific code for suspected inhalation exposure to DU, but this diagnosis should be annotated on the medical record, DD Form 2766, item 20. When the health encounter is post-deployment, the V70.5\_6 must be used as the primary code and the code for the deployment-related presenting problem should be placed in the secondary position (V 70.5\_6 is appropriate to use on both active duty and non-active duty records.)

e. The Standard Form 557, Miscellaneous, will identify whether the patient is Level I, II or 111 for suspected DU exposure, and whether the patient has a retained fragment or suspected inhalation exposure. All Standard Form 557, Miscellaneous, will have the name and contact information for the ordering physician.

f. The MTF clinical laboratory will retain a registry of all specimens (fragments and urine) sent to USACHPPM for DU analysis. The MTF requesting laboratory and the requesting HCP will receive the results in hardcopy. The local medical laboratory is responsible for ensuring that results are entered into the individual's medical record and into the local automated clinical information system (e.g., CHCS or AHLTA).

g. A DoD DU Questionnaire and Health Survey will be completed for all personnel who will provide either fragment or urine specimens for bioassays. The original completed DoD DU Questionnaire and Health Survey will be placed in the individual medical record and a copy will accompany any specimens sent to USACHPPM for analysis.

13. Medical follow-up. The need for subsequent DU bioassays for medical follow-up is based upon uranium levels found in the initial and subsequent specimen(s). Follow-up exams and bioassay are the responsibility of the PCM. This care is provided in accordance with the Post-Deployment Health Clinical Practice Guideline (reference 17, Annex 1. In addition, consultation with USACHPPM is obtained during the course of patient assessment.

#### 14. Reporting and archiving.

a. The USACHPPM will archive and will report results of fragment analysis and urine bioassay results to the MTF laboratory that submitted the specimen with interpretation and comparison to referent norms as appropriate.

b. The USACHPPM will send dose interpretation and laboratory results to the US Army Radiation Standards and Dosimetry Laboratory, Ionizing Radiation Dosimetry Branch, TMDE, Redstone Arsenal, AL, for archiving. Copies for members of the other Military Services will also be furnished, if identified, to their appropriate Dosimetry Center, for archiving.

c. The USACHPPM will forward a copy of all DU assessment and testing results to the DoD Deployment Health Clinical Center (DHCC) at Walter Reed Army Medical Center. The DHCC serves as the central archive for all DoD patient information related

to DU exposure, testing, and follow-up for active duty and reserve personnel. PCMs will forward copies of all referrals and narrative summaries from DU follow-up care to the DHCC for archiving.

D. DoD requires a semi-annual progress report for Operation Iraqi Freedom. This report provides cumulative data on both urinalyses and fragment analyses and is a composite of input from USACHPPM and the Regional Medical Commands (RMC). For example, the RMC may be asked:

(1) How many personnel have been categorized as potentially exposed by Level?

(2) How many 24-hour urine specimens did you collect? Were they all sent to CHPPM?

(3) How many results have you received?

(4) How many results have been placed in the medical records?

(5) How many patients have received the results?

There is every reason to believe that DU summary reports will be required in future operations.

#### 15. Training.

a. All HCPs (Physicians, Physician Assistants, Nurse Anesthetists, and Nurse Practitioners) will complete the Tier 1 DU General Awareness Training and the AMEDD Center and School's developed training on procedures to implement this policy. Newly assigned providers will complete the Army one-time DU Awareness Training and the AMEDD Center and School's training on procedures to implement this policy within three months of assignment to the first duty station. References 6 thru 8, Annex 1 to this enclosure provide information on how to obtain support materials for DU Awareness Training. Training on procedures to implement this policy will be made available once developed by the AMEDD Center and School.

b. HCPs will repeat the training on procedures to implement this policy at least biennially.

c. The US Army Medical Command's Directorate/Assistant Chief of Staff, Operations will track the training of HCP and provide an annual report on the status of training within the US Army Medical Command.

Annex 1 - REFERENCES

Annex 2 - RESPONSIBILITIES FOR ARMY MEDICAL PERSONNEL

Annex 3 - SHORT QUESTIONNAIRE TO ASSESS POTENTIAL DU EXPOSURE

**Annex 4 - DOD DU QUESTIONNAIRE AND DOD HEALTH SURVEY  
QUESTIONNAIRE**

**Annex 5 - PACKING AND SHIPPING REQUIREMENTS FOR DU BIOASSAY  
SPECIMENS**

**Annex 6 - HEALTHCARE PROVIDER CHECKLIST AND PROCEDURES FOR DU  
MEDICAL MANAGEMENT**

**Annex 7 - USE OF BIOASSAY IN SUSPECTED DU EXPOSURE SITUATIONS**

**Annex 8 - DEPLETED URANIUM EXPOSURE MEDICAL MANAGEMENT PROCESS  
FLOW**

## **ANNEX 1 REFERENCES**

1. Memorandum, Assistant Secretary of Defense for Health Affairs, 9 Apr 04, subject: Operation Iraqi Freedom Depleted Uranium Medical Management.
2. Memorandum, Assistant Secretary of Defense for Health Affairs, HA Policy 03-012, 30 May 03, subject: Policy for the Operation Iraqi Freedom Depleted Uranium (DU) Medical Management.
3. Memorandum, Under Secretary of Defense for Personnel and Readiness, HA Policy 04-004, 6 Feb 04, subject: Biomonitoring Policy and Approved Bioassays for Depleted Uranium and Lead.
4. Memorandum, US Army Medical Command, OTSG/MEDCOM Policy Memo 03-007, 13 Jan 04, subject: Medical Management of Army Personnel Exposed to Depleted Uranium (DU).
5. Centers for Disease Control and Prevention. Third National Report on Human Exposure to Environmental Chemicals. July 2005.
6. Audiovisual product number 711231, Policy for the Treatment of Personnel Wounded by Depleted Uranium Munitions, 28 Dec 98.
7. Audiovisual product number 806486, Medical Management of Depleted Uranium Casualties, 14 Jan 00. This is a US Navy Bureau of Medicine and Surgery sponsored tape.)
8. Audiovisual product number 711314, TVT 3-120, Tier 1 Depleted Uranium (DU) General Awareness Training, 19 Jun 00.
9. Army Regulation (AR) 40-5, Preventive Medicine, 15 Oct 90.
10. North Atlantic Treaty Organization (NATO) Standardization Agreement (STANAG) 2068, "Emergency War Surgery," 88.
11. American National Standards Institute (ANSI), HPS N13.22-1995, Bioassay Programs for Uranium, 96.
12. Department of Defense Instruction (DODI) 6490.3, Implementation and Application of Joint Medical Surveillance for Deployments, 7 Aug 97.
13. Presidential Review Directive (PRD) 5, Planning for Health Preparedness for and Readjustment of the Military, Veterans, and Their Families After Future Deployments, Aug 98.

14. AR 11-9, The Army Radiation Safety Program, 28 May 99.
15. Agency for Toxic Substances and Disease Registry (ATSDR), Toxicological Profile for Uranium (Update) and Public Health Statement, Sep 99.
16. AR 40-400, Patient Administration, 13 Oct 06.
17. Clinical Practice Guideline for Post-Deployment Health Evaluation and Management, Dec 01.
18. AR 700-48, Logistics: Management of Equipment Contaminated with Depleted Uranium or Radioactive Commodities, 16 Sep 02.
19. Department of the Army Pamphlet (DA Pam) 700-48, Logistics: Handling Procedures for Equipment Contaminated with Depleted Uranium or Radioactive Commodities, 27 Sep 02.
20. Joint Staff Capstone Document, undated, Force Health Protection - Healthy and Fit Force, Casualty Prevention, Casualty Care and Management.
21. Draft MEDCOM Redeployment/Demobilization Plan, version 3 May 03.
22. Logistics Management Institute, Final Draft: Candidate Biomarkers of Exposure, prepared for USACHPPM, 4 Dec 02.
23. McDiarmid MA, S Engelhardt, M Oliver, P Gucer, PD Wilson, R Kane, M Kabat, B Kaup, L Anderson, D Hoover, L Brown, B Handwerger, R Albertini, D Jacobson-Kram, C Thorne, and K Squibb. 2004. "Health Effects of Depleted Uranium on Exposed Gulf War Veterans: A 10-Year Follow-Up." J. Toxicol. Envir. Health, 67:277-296.

## **ANNEX 2**

### **RESPONSIBILITIES FOR ARMY MEDICAL PERSONNEL**

1. Assistant Chief of Staff/Director, Healthcare Operations, will include the Depleted Uranium (DU) training requirements identified in this memorandum in the Annual MEDCOM Command Training Guidance. HCO will top load the requirements in the Digital Training Management System (DTMS) in order to facilitate tracking of the initial implementation across the MEDCOM. HCO will monitor compliance by including the requirements as an inspectable item in the OIP checklist as well as monitor the AMEDD Center and School's development of a web based training module designed to educate health care providers on procedures to implement this policy.

2. Assistant Chief of Staff/Director, Health Policy and Services, will ensure that:

a. The clinical consultants are aware of and comply with this policy and the specified procedures.

b. The Ancillary Health Services Division provides oversight of the clinical laboratory support for the specified DU bioassay procedures.

3. Commanders, Regional Medical Commands (RMC), will:

a. Provide oversight and guidance to their health service area to implement this policy and its specified procedures, to include support planning for redeployment, demobilization, training of MTF and medical demobilization personnel on this policy, and radiation safety support.

b. The medical records of patients with retained DU fragments are properly coded according to the procedures specified in the enclosure to the basic policy memorandum.

c. Document DU Training in the DTMS. Ensure newly assigned healthcare providers (HCPs) complete the Army DU Awareness Training and the training on procedures to implement this policy within three months of assignment. Ensure HCPs repeat training on procedures to implement this policy at least biennially.

d. Provide the name and contact information for a single point of contact on DU issues within the RMC. This information must be provided to the policy POC (Director, POPM-SA) NLT 30 calendar days following promulgation of this policy.

4. Commander, USACHPPM, will:

a. Provide the Army bioassay and metal fragment identification processes and the archiving of all laboratory results and interpretations.

b. Provide the results of urine and fragment analyses to the clinical laboratory and the physician submitting the specimens consistent with approved USACHPPM protocols and procedures with a goal of 45 calendar days to provide results to the requestor.

c. Serve as the Army lead for coordination of the laboratory procedures and sample management procedures between the Army, the other military services, and the Department of Veterans Affairs.

d. Provide consultative assistance regarding the dose assessment/estimations and health implications of exposure to DU or metal fragments.

5. Commander, US Army Medical Department Center and School will develop training materials (to include web-based material) suitable for use by both Table of Organization and Equipment (TO&E) and Table of Distribution and Allowances (TDA) medical elements of the Active and Reserve Components worldwide. The training must encompass medical policies from both DoD and MEDCOM but with an emphasis on this MEDCOM policy.

6. Commanders/OICs of MTFs will ensure that:

a. This policy and its specified procedures are implemented for all encounters through their MTFs with patients with retained metal fragments and/or suspected inhalation exposure to DU.

b. DU Awareness training and training on the procedures specified in this policy are provided to their HCPs and documented IAW RMC guidance.

c. Consideration is given to appointing a single case manager for patients submitting urine specimens for DU bioassay.

7. HCPs or case managers at medical demobilization stations will:

a. Ensure the completion of the DD Form 2796 (Apr 03), Post-Deployment Health Assessment, for all Army personnel processing through the stations.

b. Ensure the completion of the short DU exposure assessment questionnaire (See Annex 3), when indicated by the DD Form 2796.

c. Assign a DU potential exposure level (I, II, or III) to Soldiers with potential exposure, documenting the assigned level on the DD Form 2796. The HCP must inform the patient about the results of the DU bioassay, and ensure that this communication and the health risk assessment and its interpretation are documented in the medical record. The HCP must also discuss any need for additional medical follow-up.

d. Refer all Soldiers assigned a potential DU exposure Level I or II to a primary care manager at the supporting MTF for further evaluation and/or bioassay, documenting the referral on the DD Form 2796.

8. Primary care managers (PCM) or case manager at MTFs will:

a. Review the DD Form 2796; the completed short questionnaire; and the assigned exposure level for completeness. The PCM will assign and document an exposure level category if one has not been assigned.

b. Refer the patient to the clinical laboratory for a 24-hour urine specimen collection and creatinine analysis. Inform the Soldier that results of laboratory tests will be sent to the Deployment Health Clinical Center (DHCC) and that they may be obtained by contacting the DHCC either on-line ([www.pdhealth.mil](http://www.pdhealth.mil)), by telephone at (202) 782-6563, Fax: (202) 782-3539, or Toll Free Help Line: (866) 559-1627.

c. Complete the DoD DU Questionnaire and Health Survey (DD Form 2872 Test DU and DD Form 2872-1 Test, respectively), ensuring that the originals are placed in the individual medical record and a copy accompanies any specimens (fragments or urine) sent to USACHPPM.

9. HCP in field medical units will:

a. Identify Army personnel with retained metal fragments and suspected inhalation or incidental exposure to DU. The initial HCP does this by:

(1) Reviewing and ensuring the completion of the DD Form 2796 for all redeploying/demobilizing Soldiers.

(2) Identifying wounded individuals and individuals with suspected DU exposure who provided a positive response on the DD Form 2796 (Apr 03), Post-Deployment Health Assessment, to Questions 14, 17 or 18 regarding potential DU Exposure.

(3) Using the short exposure assessment questionnaire provided in Annex 3 to complete the potential exposure assessment; assigning a DU potential exposure level (I, II, or III); and determining the need for bioassay for potentially exposed Soldiers.

(4) Documenting the assigned level (Level I-III) of potential DU exposure on the DD Form 2796 and entering data into the JTTR.

b. Refer all individuals assigned a Level I or Level II potential DU exposure to their PCM at the MTF for further assessment and a 24-hour urine uranium analysis as soon as possible.



10. The DU Case Manager, will:

- a. Adhere to the guiding principles and practices of the case management process.
- b. Act as the single point of contact in the MTF on DU issues.
- c. Facilitate the risk communication process including the transmittal bioassay results, coordination of potential referrals to the VA Long-Term DU Follow-up Program, and communication with the Deployment Health Clinical Center.
- d. Ideally be appointed from one of the clinical specialties of the MTF.

## ANNEX 3

### SHORT QUESTIONNAIRE TO ASSESS POTENTIAL DU EXPOSURE

**Please Print:**

Health Care Provider/Interviewer's Name: \_\_\_\_\_

Location & Date: \_\_\_\_\_

Patient's Name & Unit: \_\_\_\_\_

Conclusion/Exposure Level Assigned: \_\_\_\_\_

QUESTIONS	CIRCLE RESPONSE	
1. Were you in, on, or near (within 50 meters) an armored vehicle at the time the vehicle was struck by depleted uranium munitions?	Yes	No
2. Were you in a vehicle struck by armor-piercing munitions?	Yes	No
3. If you were in a vehicle struck by armor-piercing munitions, were the munitions DU or did you observe burning fragments (like a Fourth of July sparkler) when the vehicle was hit?	Yes	No
4. Were you in, on, or near (within 50 meters) a vehicle with depleted uranium armor (Abrams tank) at the time the armor was breached by DU or non-DU munitions?	Yes	No
5. Were you within 50 meters of a burning Abrams tank, British tank, Bradley Fighting Vehicle or any vehicle known to contain DU, DU armor or DU munitions?	Yes	No
6. Did your deployment duties involve repeated entry or recovery of vehicles likely damaged by munitions from an Abrams tank, British tank, Bradley Fighting Vehicle or USAF A-10 ("Warthog") aircraft?	Yes	No
7. Did you have any other reason to believe you were exposed to DU?	Yes	No
8. Do you currently retain fragments in your body from enemy or friendly fire?	Yes	No

### FOR HEALTHCARE PROVIDER USE

#### DU Exposure Decision Matrix\*

Yes Response to Question:	Exposure Level
1	I
2	Go to question 3
3	I
4	I
5	II
6	II
7	III Clinician's judgment on bioassay
8	Coded for fragments

## **ANNEX 4**

### **DOD DU QUESTIONNAIRE AND DOD HEALTH SURVEY QUESTIONNAIRE**

The following forms can be found on the Post Deployment Health (PDH) website <http://www.pdhealth.mil/du.asp>. AMEDD personnel through local reproduction will use the DU questionnaire and the Health Survey forms until a standardized SF 600 overprint is approved and provided to the field.

There are versions in Adobe Acrobat as well as a link to a ProForm and FormFlow versions also available at PDH. These versions should allow electronic completion.

## DEPLETED URANIUM (DU) QUESTIONNAIRE

1. MILITARY TREATMENT FACILITY (MTF): \_\_\_\_\_ MTF UIC: \_\_\_\_\_

INSTALLATION NAME: \_\_\_\_\_

## PRIVACY ACT STATEMENT

**AUTHORITY:** Sections 1074f, 3013, 6013, 8013, Title 10, U.S. Code, and E.O. 9397.

**PRINCIPAL PURPOSE(S):** To assess your state of health after deployment or for any deployment related concern and to assist military health care providers in identifying and providing present and future medical care to you.

**ROUTINE USE(S):** To other Federal and State agencies and civilian health care providers as necessary, in order to provide necessary medical care and treatment.

**DISCLOSURE:** Voluntary; however, if information is not provided, health care WILL be furnished, but comprehensive care may not be possible.

PART I	
--------	--

2. LAST NAME	

[illegible]

<b>4.a. SOCIAL SECURITY NUMBER</b>						<b>b. SERVICE SERIAL NUMBER</b>								<b>c. DATE OF BIRTH</b>										
		-		-												Month	Day	Year						

6. ADDRESS (Street name and apartment number, if applicable)

[illegible]

c. COUNTY	d. STATE	e. ZIP CODE	PLUS 4 (Optional)	f. COUNTRY	STATE
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g. TELEPHONE NUMBERS WHERE MEMBER MAY BE CONTACTED														TODAY'S DATE					
Daytime							Evening							Month		Day		Year	

<b>6.a. MARITAL STATUS</b>				
1 = Married	2 = Divorced	3 = Separated	4 = Widowed	5 = Single, Never Married

b. SEX		
F = Female	M = Male	

<b>c. CURRENT STATUS</b>				
1 - Inpatient	2 - Outpatient	3 - Incarcerated	4 - Active Duty, Inpatient	5 - Active Duty, Outpatient

d. BRANCH OF SERVICE						
1 - Army	2 - Air Force	3 - Navy	4 - Marines	5 - Coast Guard	6 - Other	

7.a. LAST PERIOD OF SERVICE IN PERSIAN GULF AREA PRIOR TO OPERATION IRAQI FREEDOM  
(August 2, 1990 - March 18, 2003)

FROM	Day	Month	Year	TO	Day	Month	Year

b. LAST PERIOD OF SERVICE IN PERSIAN GULF AREA DURING OPERATION IRAQI FREEDOM (March 18, 2003 - Present)	
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FROM	Day	Month	Year	TO	Day	Month	Year
------	-----	-------	------	----	-----	-------	------

[illegible]

FROM	Day	Month	Year	TO	Day	Month	Year
10-20-2023	20	10	2023	10-20-2023	20	10	2023

NAME (Last, First, Middle Initial)		SSN
PART II (To be completed by Environmental Health Coordinator or Clinician)		
9. Who referred the member for medical evaluation? (Enter one letter code)		
A - Deployment Health Support Directorate (formerly the Office of the Special Assistant for Gulf War Illness (OSAGWI)) of Department of Defense B - Another Department of Defense Office C - Department of Veterans Affairs (VA) D - Self referred (Including the DD2796 - Post Deployment Health Assessment Form) E - Service/Commander directed F - Other sources (Identify, including referring medical facility name/address):		
Answer each question with: Y = Yes; N = No; D = Don't Know		
10. Where did member serve?		
a. Kuwait		
b. Saudi Arabia		
c. Iraq		
d. Only on a ship (not ashore)		
e. Other (Identify)		
11. Was the member a logistics assistance representative (LAR) who inspected depleted uranium contaminated systems to determine reparability?		
12. Was the member a member of a battle damage assessment team (BDAT) who examined U.S. combat vehicles known or suspected to be damaged or destroyed by DU?		
13. If the member served prior to Operation Iraqi Freedom, was he/she a member of the 144th Service and Supply Company who processed damaged equipment, including some with DU contamination during Operation Desert Storm/Desert Shield?		
14. Was the member a member of a radiation control (RADCON), or other radiation survey team deployed in the Persian Gulf?		
15. Was the member involved in the examination or recovery of damaged or destroyed enemy vehicles?		
16. Was the member involved in the downloading of equipment or munitions from vehicles known or suspected to be contaminated by DU?		
17. Was the member a member of a unit maintenance team performing maintenance on or in systems known or suspected to be contaminated by DU?		
18. If the member served prior to Operation Iraqi Freedom, was he/she at Doha on July 11, 1991, at the time of the fire?		
a. Was the member directly involved in clean-up operations following the Doha explosion and fire?		
b. Was the member exposed to smoke from burning Doha rounds?		
19. Was the member in or on a vehicle hit by enemy fire at the time it was hit? If "No", skip to Question 20.		
a. If "Yes", what type of vehicle:		
(1) Abrams battle tank		
(2) Bradley fighting vehicle		
(3) Other (Identify)		
(4) Don't know		
b. Was the vehicle hit by DU munitions?		
20. Did the member enter an Abrams battle tank to perform rescue operations immediately after it was struck by enemy fire?		
21. Did the member enter an Abrams battle tank to retrieve sensitive items immediately after it was struck by enemy fire?		
22. Did the member enter a Bradley fighting vehicle to perform rescue operations immediately after it was struck by enemy fire?		
23. Did the member enter a Bradley fighting vehicle to retrieve sensitive items immediately after it was struck by enemy fire?		

NAME (Last, First, Middle Initial)		SSN
<p align="center"><b>PART II (Continued)</b>          Answer: Y = Yes; N = No; D = Don't Know</p>		
24. Was the member in or on a vehicle hit by friendly fire at the time it was hit? If "No", skip to Question 25.		
a. If "Yes", what type of vehicle:		
(1) Abrams battle tank		
(2) Bradley fighting vehicle		
(3) Other (Identify)		
(4) Don't know		
b. Was the vehicle hit by DU munitions?		
25. Did the member enter an Abrams battle tank to perform rescue operations immediately after it was struck by friendly fire?		
26. Did the member enter an Abrams battle tank to retrieve sensitive items immediately after it was struck by friendly fire?		
27. Did the member enter a Bradley fighting vehicle to perform rescue operations immediately after it was struck by friendly fire?		
28. Did the member enter a Bradley fighting vehicle to retrieve sensitive items immediately after it was struck by friendly fire?		
29. Did the member enter any enemy vehicle to perform rescue operations immediately after it was struck by friendly fire? If "No", skip to Question 30. If "Yes", what type of vehicle?		
a. Tank		
b. Other tracked vehicle (Identify)		
c. Truck		
d. Other wheeled vehicle (Identify)		
e. Other type vehicle (Identify)		
f. Don't know		
30. Did the member enter any enemy vehicle to retrieve sensitive items or intelligence material immediately after it was struck by friendly fire? If "No", skip to Question 31. If "Yes", what type of vehicle?		
a. Tank		
b. Other tracked vehicle (Identify)		
c. Truck		
d. Other wheeled vehicle (Identify)		
e. Other type vehicle (Identify)		
f. Don't know		
31. Was the member exposed to smoke from any enemy equipment struck by DU rounds?		
32. Did the member remove equipment or other items from a damaged or destroyed U.S. or enemy vehicle? If "No", skip to Question 33.		
a. If the member removed something from a vehicle, please describe it:		
b. Does the member still have equipment or other items removed from a damaged or destroyed U.S. or enemy vehicle?		

NAME (Last, First, Middle Initial)		SSN
<p align="center"><b>PART II (Continued)</b>  <b>Answer: Y = Yes; N = No; D = Don't Know</b></p>		
33. Was the member within 50 meters (54.68 yards) of a vehicle when it was hit (not including vehicles the member was in or on that were hit)? If "No", skip to Question 34.		
a. If "Yes", what type of vehicle:		
(1) Abrams battle tank		
(2) Bradley fighting vehicle		
(3) Other (Identify)		
(4) Don't know		
b. Was the vehicle hit by DU munitions?		
34. Did the member breathe smoke or dust from vehicles hit by enemy or friendly fire? If "No", skip to Question 35.		
a. If "Yes", what type of vehicle:		
(1) Abrams battle tank		
(2) Bradley fighting vehicle		
(3) Other (Identify)		
(4) Don't know		
b. Was the vehicle hit by DU munitions?		
35. Did the member climb on or enter vehicles hit by enemy or friendly fire some time after the immediate post-impact rescue period? If "No", skip to Question 36.		
a. If "Yes", what type of vehicle:		
(1) Abrams battle tank		
(2) Bradley fighting vehicle		
(3) Other (Identify)		
(4) Don't know		
b. How many times?		
(1) 1 time		
(2) 2 times		
(3) 3 - 10 times		
(4) More than 10 times		
(5) Don't know		
c. How long (in total) was the member on board the vehicle(s)?		
(1) Less than 5 minutes		
(2) 5 - 15 minutes		
(3) 16 - 30 minutes		
(4) More than 30 minutes		
(5) Don't know		
d. Was the vehicle known to be contaminated with DU?		

NAME (Last, First, Middle Initial)		SSN
<p align="center"><b>PART II (Continued)</b>  <b>Answer: Y = Yes; N = No; D = Don't Know</b></p>		
36. Did the member pass within 50 meters (54.68 yards) of a damaged or destroyed vehicle? If "No", skip to Question 37.		
a. If "Yes", how long (in total) after the destructive event:		
(1) Less than 12 hours		
(2) 12 - 24 hours		
(3) More than 24 hours		
(4) Don't know		
b. What type of vehicle		
(1) Abrams battle tank		
(2) Bradley fighting vehicle		
(3) Other (Identify)		
(4) Don't know		
c. Was the vehicle burning?		
37. Was the member wounded as a result of being in, on, or within 50 meters (54.68 yards) of the damaged vehicle at the time it was hit? If "No", skip to Question 38.		
a. If "Yes", where was the member wounded:		
(1) Leg/foot		
(2) Arm/hand		
(3) Face/head		
(4) Neck		
(5) Body		
b. Does the member have retained fragments or shrapnel in his/her body?		
38. Did the member fire DU rounds?		
39. Did the member handle bare/damaged DU penetrator rounds? If "No", skip to Question 40.		
a. If "Yes", did the member handle the rounds with gloves?		
b. Did the member handle the rounds with shielding?		
40. Did the member have exposure to DU that is NOT captured by this questionnaire? If "Yes", describe:		
41. Does the member have other exposures and experiences to discuss with the provider? If "Yes", describe:		
42. Is the 24-hour urine collection for Uranium being performed? If "No" or "Don't Know", explain. If "Yes", the Service Laboratory or Baltimore DU staff will update this questionnaire with the results upon completion of the test.		



NAME (Last, First, Middle Initial)		SSN
PART II (Continued)		
43.a. Date(s) of Potential DU Exposure		
b. Circle highest level of exposure: <div style="display: inline-block; width: 100px; text-align: center;">Level I</div> <div style="display: inline-block; width: 100px; text-align: center;">Level II</div> <div style="display: inline-block; width: 100px; text-align: center;">Level III</div>		
c. Other Comments		
44.a. Name of Examiner (print)		b. Telephone Number of Examiner
45. Title of Examiner		46. Signature of Examiner

NAME (Last, First, Middle Initial)	SSN
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**PART III (To be completed by the Service Laboratory or Baltimore VAMC DU Follow-Up Program Staff)**

If the 24-hour urine collection test is being performed ("Yes" response to Question 42), the Service Laboratory or Baltimore DU staff will update the questionnaire with the results upon completion of the test.

47. Corrected urine uranium (expressed per mcg per g creatinine)  
3 digits to the left and 3 digits to the right of the decimal.

				■			
				■			

Repeat urine uranium.

48. Remarks

<b>HEALTH SURVEY</b> <i>(Supersedes Short Form (SF) - 36)</i>					
<b>PRIVACY ACT STATEMENT</b>					
<b>AUTHORITY:</b> Sections 1074f, 3013, 6013, 8013, Title 10, U.S. Code; and E.O. 9397. <b>PRINCIPAL PURPOSE(S):</b> To assess your state of health after deployment or for any deployment related concern and to assist military health care providers in identifying and providing present and future medical care to you. <b>ROUTINE USE(S):</b> To other Federal and State agencies and civilian health care providers as necessary, in order to provide necessary medical care and treatment. <b>DISCLOSURE:</b> Voluntary; however, if information is not provided, health care WILL be furnished, but comprehensive care may not be possible.					
<b>NAME</b> <i>(Last, Middle, First)</i>			<b>SSN</b>		<b>DATE</b>
<p>This survey asks for your views about your health. This information will help you keep track of how you feel and how well you are able to do your usual activities.</p> <p>Answer every question by selecting the answer as indicated. If you are unsure about how to answer a question, please give the best answer you can.</p>					
<b>1. In general, would you say your health is: (Fill in the circle that best describes your answer.)</b>					
Excellent <input type="radio"/>	Very Good <input type="radio"/>	Good <input type="radio"/>	Fair <input type="radio"/>	Poor <input type="radio"/>	
<b>2. Compared to one year ago, how would you rate your health in general now?</b>					
Much better now than one year ago <input type="radio"/>	Somewhat better now than one year ago <input type="radio"/>	About the same as one year ago <input type="radio"/>	Somewhat worse now than one year ago <input type="radio"/>	Much worse now than one year ago <input type="radio"/>	
<b>3. The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much? (Select one circle on each line.)</b>					
	Yes, limited a lot <input type="radio"/>	Yes, limited a little <input type="radio"/>	No, not limited at all <input type="radio"/>		
a. Vigorous Activities, such as running, lifting heavy objects, participating in strenuous sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
b. Moderate Activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
c. Lifting or carrying groceries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
d. Climbing several flights of stairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
e. Climbing one flight of stairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
f. Bending, kneeling, or stooping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
g. Walking more than a mile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
h. Walking several hundred yards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
i. Walking one hundred yards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
j. Bathing or dressing yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
<b>4. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of your physical health?</b>					
	All of the time <input type="radio"/>	Most of the time <input type="radio"/>	Some of the time <input type="radio"/>	A little of the time <input type="radio"/>	None of the time <input type="radio"/>
a. Cut down on the amount of time you spent on work or other activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Accomplished less than you would like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Were limited in the kind of work or other activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Had difficulty performing the work or other activities (for example, it took extra effort)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

NAME _____	SSN _____																																																												
<p>5. During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 45%;"></th> <th style="width: 10%;">All of the time</th> <th style="width: 10%;">Most of the time</th> <th style="width: 10%;">Some of the time</th> <th style="width: 10%;">A little of the time</th> <th style="width: 15%;">None of the time</th> </tr> </thead> <tbody> <tr> <td>a. Cut down on the amount of time you spent on work or other activities</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>b. Accomplished less than you would like</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>c. Did work or other activities less carefully than usual</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> </tbody> </table>			All of the time	Most of the time	Some of the time	A little of the time	None of the time	a. Cut down on the amount of time you spent on work or other activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	b. Accomplished less than you would like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	c. Did work or other activities less carefully than usual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																				
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<p>6. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Not at all</th> <th style="width: 20%;">Slightly</th> <th style="width: 20%;">Moderately</th> <th style="width: 20%;">Quite a bit</th> <th style="width: 20%;">Extremely</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> </tbody> </table>		Not at all	Slightly	Moderately	Quite a bit	Extremely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																		
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## ANNEX 5

### PACKING AND SHIPPING REQUIREMENTS FOR DU/OTHER HEAVY METAL/ALLOY SPECIMENS

1. Request your MTF stock these items for your use in shipping specimens to USACHPPM. For your first-time collections, USACHPPM may be able to ship by Federal Express a limited number of these items for your use.
  - a. Bottles used for collecting and mailing urine specimens are Fisher one liter wide-mouth plastic bottles (Cat # 02 896 2F from Fisher Scientific, <https://www1.fishersci.com/index.jsp>).
  - b. Two Five quart (imperial gallon) aluminum paint cans (Cat# C-680, HAZMATPAC, <http://www.hazmatpac.com/>). (1-800-923-9123)
  - c. Absorbent Packing Material (Cat# SP-U100, 50/pack, HAZMATPAC, <http://www.hazmatpac.com/>). (1-800-923-9123)
  - d. Shipping Boxes (Lynchburg Sheltered Industries Cat#183-9491 12x12x12, <http://www.lsiworks.org/>).
2. In the shipping package, use "Ziploc" freezer bags to protect memorandum, laboratory slips, and other documents sent with the urine specimens or fragments.
3. Collect 24-hour urine specimen in 32-oz Fisher Wide mouthed bottles.
  - a. Label bottles with SS# and Name and number them #1, #2.
  - b. Remove 1 mL sample from each bottle for creatinine analysis and do analysis.
  - c. Place specimens in the five quart aluminum paint can, wrap each can with absorbent material (i.e., baby diaper) place in shipping box and send specimen and creatinine results by FEDEX, DHL, or best available means to CHPPM.
4. Mail or ship (FEDEX, DHL or best available means) the packages of urine specimens or fragments to the following address:

U.S. ARMY CENTER FOR HEALTH PROMOTION AND  
PREVENTIVE MEDICINE  
ATTN: MCHB-TS-LRD/Division Chief/RCCCD  
5158 BLACKHAWK ROAD  
ABERDEEN PROVING GROUND, MARYLAND 21010-5403

5. Before shipping any urine specimens or metal fragments to USACHPPM, please contact the USACHPPM Laboratory by telephone, facsimile (FAX) (410-436-7487), or e-mail. Points of Contact:

Primary: Mr. Ronald Swatski, Division Chief, Radiologic, Classic, and Clinical Chemistry Division, at (410) 436-3983, DSN 584-3983, or [Ronald.Swatski@apg.amedd.army.mil](mailto:Ronald.Swatski@apg.amedd.army.mil).

Alternate: Mr. Tom Beegle at (410) 436-8244, DSN 584-8244, or [Thomas.Beegle@us.army.mil](mailto:Thomas.Beegle@us.army.mil)

Packaging and Shipping Support: Ms. Heidi Taylor at (410) 436-4336, DSN 584-4336 or <mailto:Heidi.Taylor@us.army.mil>

USACHPPM EOC Current Operations' SIPRNET address is: <mailto:usachppm-eoc@usachppm.army.smil.mil>

The USACHPPM SIPRNET website is <http://usachppm1.army.smil.mil/>

## ANNEX 6

### HEALTHCARE PROVIDER CHECKLIST AND PROCEDURES FOR DU MEDICAL MANAGEMENT

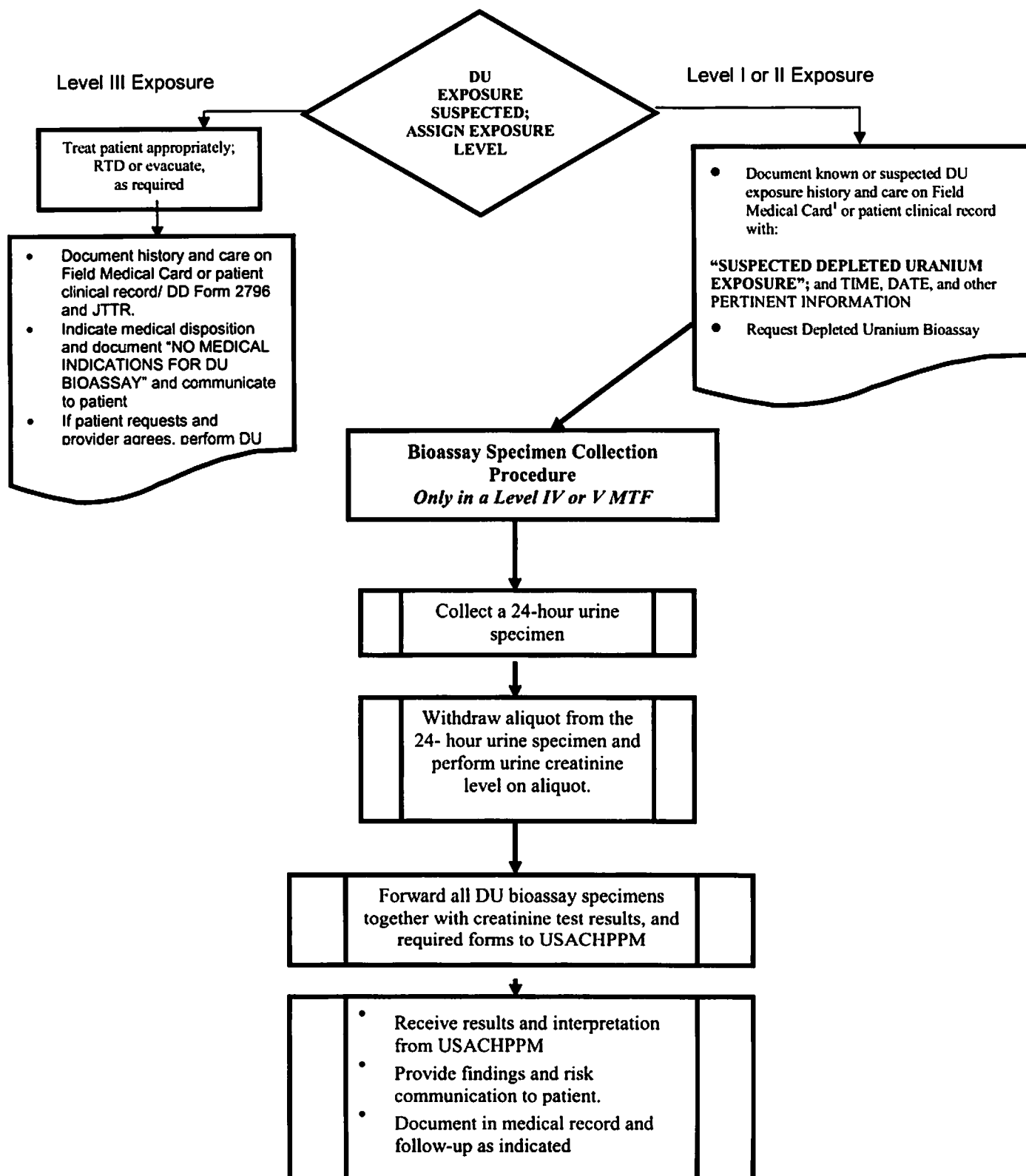
- \_\_\_\_\_ If the individual is wounded, has been identified by unit or chain of command as potentially exposed, completes the DD Form 2796 indicating a DU exposure, or has already been identified by DOD as possibly DU-exposed, an individual DU exposure assessment questionnaire and examination needs to be completed. The Solider and data should be entered into the JTTR and ALTHA. Annex 7 is a flow diagram of this process.
- \_\_\_\_\_ Complete the short exposure assessment questionnaire (see Annex 3) to identify potential exposure level of individuals. See definitions of the three levels of DU exposure in paragraph 4 of the Enclosure.
- \_\_\_\_\_ Order 24-hour urine collection and urine creatinine level for all Level I and II individuals. A urine creatinine test must be performed on the urine specimens. NOTE: Urine collection is not required in a Theater of Operations. Higher echelon, IV and V, medical facilities acting as enroute processing points for redeploying Soldiers should not collect specimens on those Soldiers; **however, when a urine specimen for DU bioassay is required, based upon the potential DU exposure level, the medical treatment facility (MTF) should document on the DD Form 2796, Post-Deployment Health Assessment, and other medical records (e.g., DD Form 2766, sections 5 and 7 (block 20) that a 24-hour urine specimen for DU bioassay should be collected by the Soldier's home station MTF.** In addition, code the information into the Ambulatory Data Management (ADM) (previously called Ambulatory Data System (ADS)) and the Composite Healthcare System (CHCS).
- \_\_\_\_\_ Complete the DD Form 2872, DU Questionnaire, and DD Form 2872-1, Health Survey, (Annex 4) for all individuals who provide fragments and/or a 24-hour urine specimen for uranium bioassay analysis. Retain a copy of these forms in the medical record.
- \_\_\_\_\_ Order 24-hour urine collection for uranium bioassay for Level III individuals only if based on other medical indications from the assessment or on the potentially exposed individual's request.
- \_\_\_\_\_ Send the 24-hour urine specimen with a completed Standard Form 557, Miscellaneous; a copy of the completed DoD DU Questionnaire and Health Survey; and results of a urine creatinine analysis, using an aliquot of the 24-hour urine collection, to USACHPPM for DU analysis.
- \_\_\_\_\_ For corroboration of the urine creatinine measurement level and for input into the dose assessment, the patient's age, sex, height, and weight must also be provided on the laboratory request, Standard Form 557, Miscellaneous. Any pertinent clinical findings, such as patient hydration status (e.g., increased fluid intake) that might affect the interpretation of the laboratory results should be included.
- \_\_\_\_\_ Instructions for urine collection, type of collection containers, shipping instructions, and mailing addresses can be found in Annex 5.
- \_\_\_\_\_ All metallic fragments removed surgically from patients classified as Level I must be sent to USACHPPM for analysis. Instructions and mailing addresses are at Annex 5. Metal fragments removed from other than potentially DU-exposed patients should be sent to USACHPPM for analysis.
- \_\_\_\_\_ Diagnostic evaluation of additional or other signs or symptoms, identified during the examination, are to be completed as clinically indicated.

## ANNEX 7

### USE OF BIOASSAY IN SUSPECTED DU EXPOSURE SITUATIONS\*

**\* Note: There is not requirement to collect urine in Theater.**

1. Determine the DU exposure level category (level I, II, or III).
2. Document suspected DU exposure on the field medical card for echelons I and II, or in the medical record on the DD Form 2766 for echelons III and IV, or on DD Form 2796 for re-deploying personnel.
3. Send 24-hour urine specimen, urine creatinine test result, Miscellaneous SF 557, and Supplemental DU exposure questionnaire to the USACHPPM laboratory for all personnel assigned a Level I and II exposure category.





## ANNEX 8

### DEPLETED URANIUM EXPOSURE MEDICAL MANAGEMENT PROCESS FLOW

The following material is taken from the Post Deployment Health website. In addition, the Deployment Health Clinical Center has printed cards and placed them in the Clinical Practice Guideline kits for use in Medical Treatment Facilities.

Depleted Uranium

#### Depleted Uranium Exposure Medical Management Process Flow DoD Process Summary

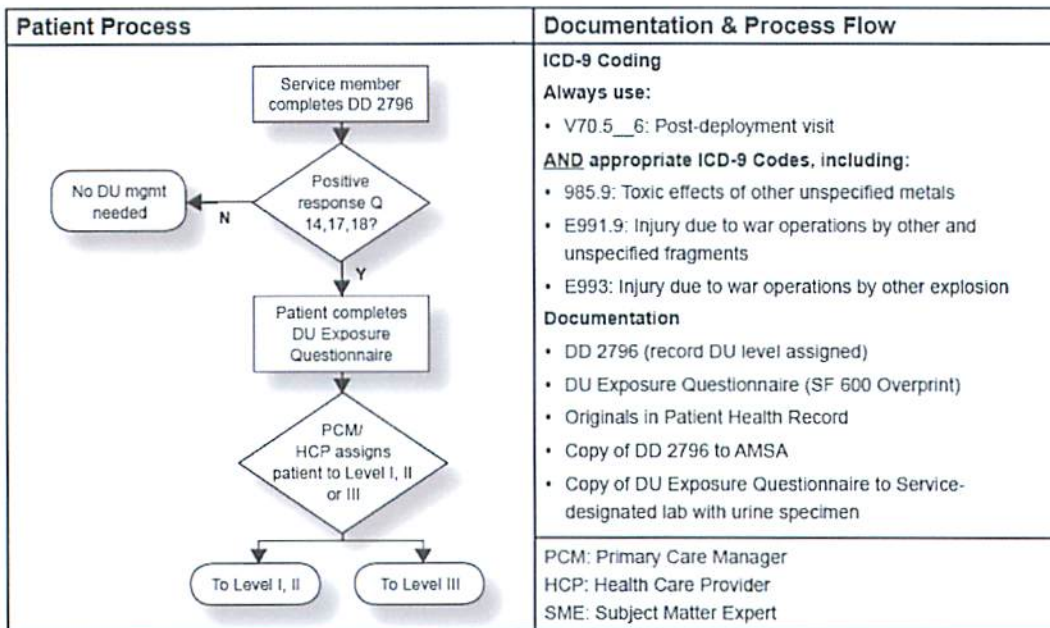
1. **Identification:** Positive responses on DD Form 2796, Questions 14, 17, or 18; or identification with known exposure event or unit. Annotate DD 2796; send to AMSA.
2. **Assessment:** Identified personnel complete DU Exposure Questionnaire. Questionnaire and tracking forms to Service-designated labs; labs send to DHCC.
3. **Triage:** Assign to DU Exposure Level I, II, III, or None.
4. **Level III:** Level III exposures do not require testing unless deemed appropriate by provider based on other information or patient request. Process complete.
5. **Level I & II:** Require 24-hr Urine Uranium Bioassay, including urine creatinine analysis according to Service-specific guidelines.
6. **Lab Results:** Returned to MTF lab and referring provider by processing lab; sent to Service Dosimetry Center and DHCC for archiving.
7. **Results to Patient:** Provider delivers results and risk communication to patient. MTF ensures quality control and patient's receipt of results.
8. **Negative Results:** Results to patient and medical management complete.
9. **Positive Urine Result:** First positive requires second confirmation 24-hr urine and check for fragments, if none previously identified. Second positive requires referral through Service SME and DHCC to VA DU Follow-up Program.
10. **Follow-up and Case Management:** DHCC facilitates referral to VA; narrative summary of care sent from VA to MTF for medical record and to DHCC for case management.



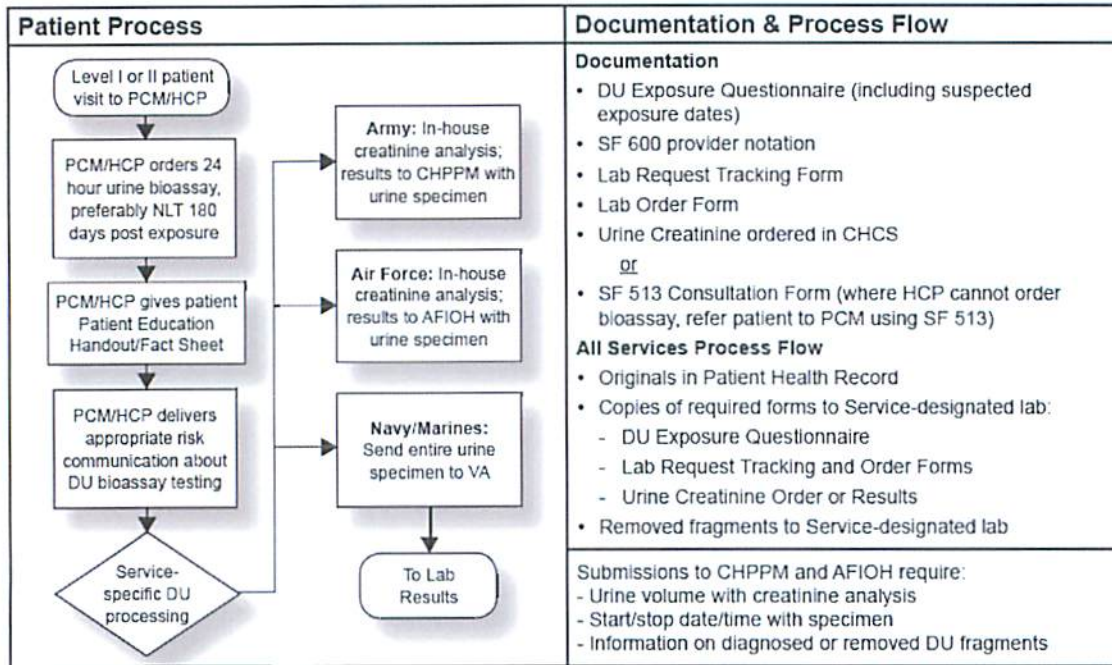
DHCC Clinicians Helpline: 1 (866) 658-1627 DSN: 662-6563 [www.PDHealth.mil](http://www.PDHealth.mil)  
PDH-CPG Tool Kit Pocket Cards Version 1.0 December 2003



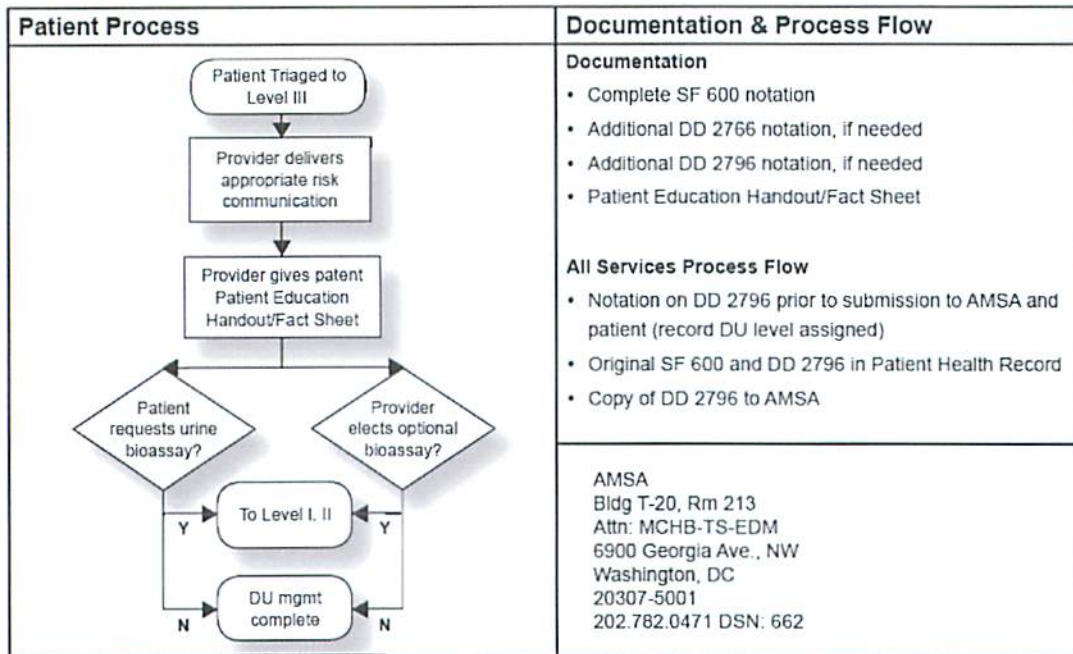
## Depleted Uranium Exposure Medical Management Process Flow Identification, Assessment, and Triage



## Depleted Uranium Exposure Medical Management Process Flow Level I, II

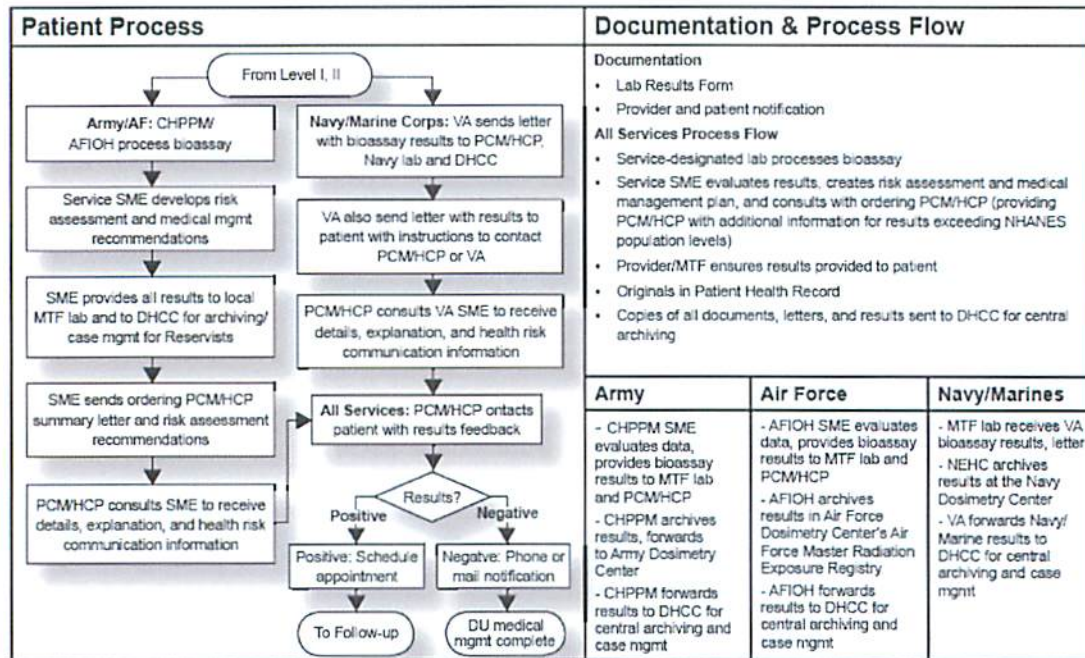


## Depleted Uranium Exposure Medical Management Process Flow Level III





## Depleted Uranium Exposure Medical Management Process Flow Lab Results



## Depleted Uranium Exposure Medical Management Process Flow Follow-up

